

WHAT IS CLAIMED IS:

1. A molded electrode comprising:
- (a) an electrode material comprising a polymer active material, a conductivity-enhancing agent and a plasticizer and
- 5 (b) a current collector sheet;
- the electrode material and the current collector sheet molded into one piece, and the electrode material being in a thickness of 300 μ m to 9 mm and formed on at least one side of the current collector sheet.
2. A molded electrode comprising:
- (a) an electrode material comprising a polymer active material, a conductivity-enhancing agent and a plasticizer and
- 5 (b) a plurality of current collector sheets;
- the electrode material and the current collector sheets formed into one piece, and the current collector sheets spaced each other in the thickness direction of the electrode.
3. A molded electrode comprising:
- (a) an electrode material comprising a polymer active material, a conductivity-enhancing agent and a plasticizer and
- 5 (b) at least one current collector sheet;
- the electrode material and the current collector sheet

formed into one piece, and the ratio of the volume of the electrode material and the volume of the current collector sheet being 30:1 to 100:1, provided the volume of the terminal portion of the current collector sheet is excluded from the volume of the current collector sheet.

4. A molded electrode according to Claim 3, wherein the current collector sheet is two or more.

5. A molded electrode according to Claim 1, wherein the amount of the plasticizer is 2 to 15% by weight of the total of the electrode material.

6. A molded electrode according to Claim 2, wherein the amount of the plasticizer is 2 to 15% by weight of the total of the electrode material.

7. A molded electrode according to Claim 3, wherein the amount of the plasticizer is 2 to 15% by weight of the total of the electrode material.

8. A molded electrode according to Claim 1, wherein the electrode material (a) has unevenness at the surface.

9. A molded electrode according to Claim 2, wherein the electrode material (a) has unevenness at the surface.

92/ 10. A molded electrode according to Claim 3, wherein the electrode material (a) has unevenness at the surface.

11. A method for producing a molded electrode, which comprises a step of:

hot pressing (a) an electrode material which is a mixture of a polymer active material, a conductivity-enhancing agent and a plasticizer and (b) at least one current collector sheet.

12. A method for producing a molded electrode, which comprises steps of:

(i) hot pressing (a) an electrode material which is a mixture of a polymer active material, a conductivity-enhancing agent and a plasticizer and (b) at least one current collector sheet to form a molded material and

(ii) conducting once or more times step of

(ii-1) hot pressing the molded material, the same electrode material and a current collector sheet, or/and

(ii-2) laminating and hot pressing a plurality of molded materials each produced as above,

whereby forming a one-piece molded electrode comprising the electrode material and a plurality of current collector sheets spaced each other in the thickness direction of the electrode.

13. A method according to Claim 11, wherein the amount of the plasticizer is 2 to 15% by weight of the total of the electrode material.

14. A method according to Claim 12, wherein the amount of the plasticizer is 2 to 15% by weight of the total of the electrode material.

15. A method according to any of Claims 11, wherein, in the hot pressing, a die having unevenness at the surface is used to form unevenness at the surface of the molded electrode.

16. A method according to any of Claims 12, wherein, in the hot pressing, a die having unevenness at the surface is used to form unevenness at the surface of the molded electrode.

17. A secondary battery using a molded electrode set forth in Claim 1, as at least either of the positive electrode and the negative electrode.

18. A secondary battery using a molded electrode set forth in Claim 2, as at least either of the positive electrode and the negative electrode.

19. A secondary battery using a molded electrode set forth

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in Claim 3, as at least either of the positive electrode and
the negative electrode.

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